



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 05, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10901037, issued to K. PETROLEUM, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.


James Martin
Chief

Operator's Well No: WB-7
Farm Name: POCAHONTAS LAND CORP.
API Well Number: 47-10901037
Permit Type: Plugging
Date Issued: 10/05/2015

Promoting a healthy environment.

10/09/2015

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

WW-4B
Rev. 2/01

1) Date JULY 7TH, 20 15
2) Operator's Well No. WB07
3) API Well No. 47-109 - 01037

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow ___

5) Location: Elevation 1281 Watershed INDIAN CREEK
District CENTER County WYOMING Quadrangle PINEVILLE 7.5

6) Well Operator K. PETROLEUM, INC. 7) Designated Agent MICHAEL E. COLLINS
Address 81 MILL ST. SUITE 205 Address 4299 NEWARK RD.
GAHANNA, OH 43230 ELIZABETH, WV 26143

8) Oil and Gas Inspector to be notified Name Dan Mullins
Address: ~~124 Big Trace Fork Rd.~~
~~Harts, WV 25524~~
220 Jack Acres Rd Buckhannon WV 26201

9) Plugging Contractor Name PATCHWORK OIL & GAS, LLC
Address 8165 ELIZABETH PIKE
ELIZABETH, WV 26143

10) Work Order: The work order for the manner of plugging this well is as follows:

PLUGGING SCHEMATIC AND WORK ORDER TO FOLLOW...

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Danny Mullins

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Office of Oil and Gas
AUG 20 2015
Date 8-6-15
WV Department of
Environmental Protection
10/09/2015

REVISED WORK ORDER**WB #07**

47-109-01037

PROPOSED PLUGGING PROCEDURE

1. Prepare plugging permit application.
2. Certify to surface and coal owners.
3. Certify to designated State inspector for signature.
4. Once all signatures are obtained, copy for our records and certify to Jeff at the State Office for approval.
5. Receive plugging permit good for 2 years.
6. Notify the designated State inspector 24 hours prior to commencing operations.
7. Take equipment to location and begin prepping for plug.
8. Rig up
9. Verify total depth of 1308'.
10. Attempt to clean out well bore to original depth, if needed.
11. Run E-log (caliper, deviation, density, and gamma) to determine the location of the lowest mineable coal bed.
12. Run tubing to TD at 1308'. Set first plug with 14 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 1308' up to 1118'. This will cover bottom plug, pay and elevation.
12. Pull tubing back, wait 8 hours, run in and tag plug, add cement if needed.
13. Begin looking for free point.
14. Run 2 sack of 6% Bentonite gel from 1118' up to 750'.
15. Based on cement fill up on records the 4 1/2 free point should be around 500'.
16. Circulate gel. Cut and remove a section of 4 1/2" by milling out a segment from depth 533' to 513' to produce a 20' casing free zone from 5' below the P3 seam to 10' above. This will facilitate active mining of the P3 at depth 523'

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**If the production string of casing is cemented through the POCA 3 coal seam and unable to remove, then the Production string may be Section milled and the protection string perforated with approximately 8 shots per foot in a 10' area.

17. Perforate 4 1/2 at 10' intervals beginning at depth 683' through depth 533'.
18. Find free point, then sever at approximately 500'.
19. Run tubing to 750', circulate gel, then run 55 sacks of expandable cement slurry down the tubing to displace the gel and fill well bore from depth of 750' to 372' (4 1/2, rip, 8 5/8 casing shoe)
20. Pull tubing back, wait 8 hours
21. Run in and tag plug, add cement if needed.
22. Run 4 sacks of 6% Bentonite gel from 372' up to 100'.
23. Run 50 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 100' to surface.
24. Solidify pit if necessary with more cement and lime, then bury.
25. Set ~~6" x 12.5"~~ steel pipe with concrete with 1/2" API identification. *36" high 7" casing
Also put The Date plugging was Done*
26. Rig down, and move equipment out.
27. Reclaim location
28. Prepare WR-34 & WR-38 for permit release.

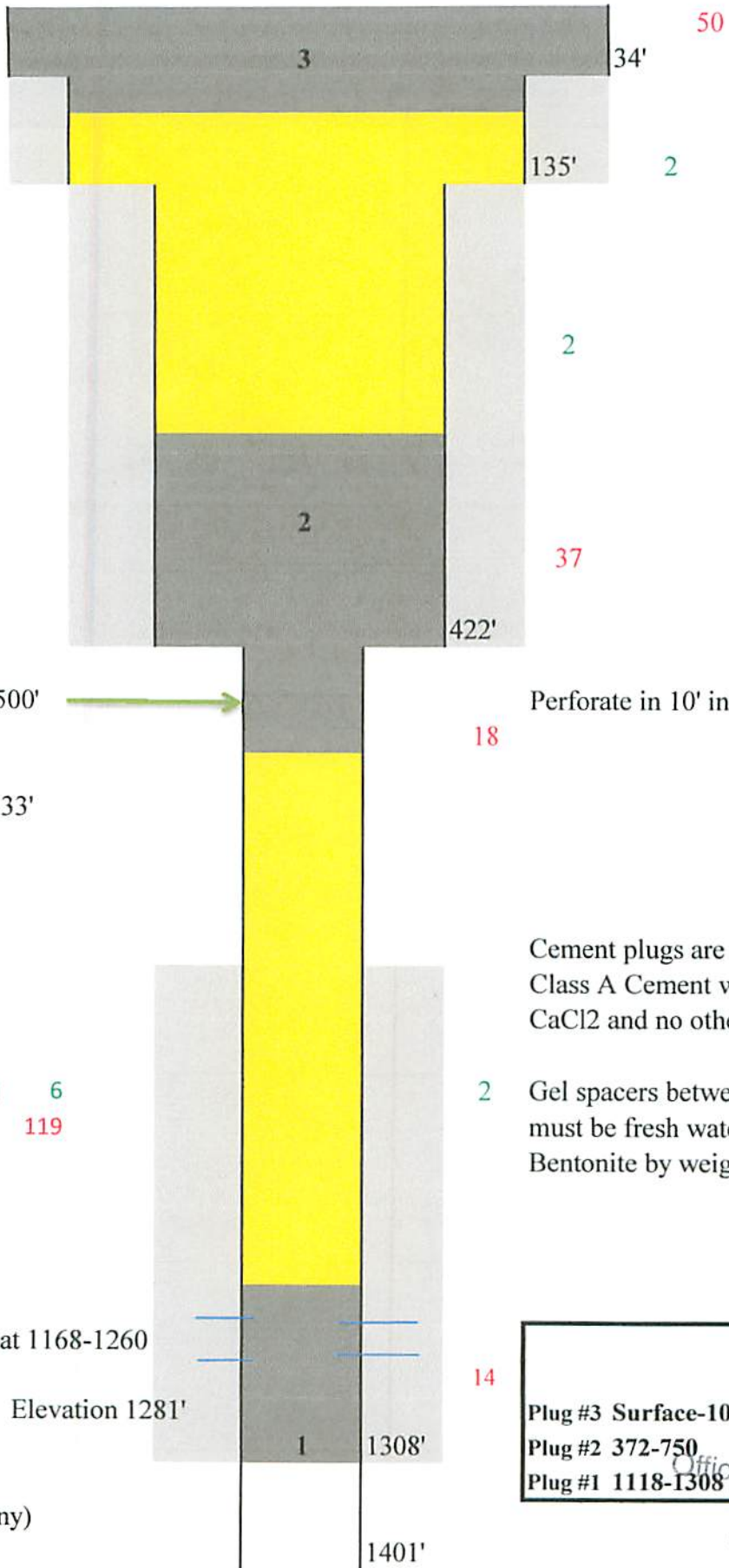
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Environmental ~~10/09/2015~~

NOT TO SCALE

WB #07
47-109-01037



Cement plugs are at a minimum of 100'
Class A Cement with no more than 3%
CaCl2 and no other additives.

2 Gel spacers between all cement plugs
must be fresh water with at least 6%
Bentonite by weight

50lb sacks of 6% gel used 6
100lb sacks of cement 119

Plugs	
Plug #3	Surface-100' Surface
Plug #2	372-750 4 1/2, rip, 8 5/8 casing shoe
Plug #1	1118-1308 bottom, pay, clay

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10/09/2015

18 10901037P



IV-35
(Rev 8-81)

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JAN 08 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date 1-4-88
Operator's
Well No. W1-37
Farm POCAHONTAS LAND
API No. 47-109-1037

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal /
(If "Gas," Production X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1281 Watershed INDIAN CREEK
District: CENTER County WYOMING Quadrangle PINEVILLE 7.5'

COMPANY BOWIE INC
ADDRESS 132 WALNUT STREET CLARKSBURG, WV
DESIGNATED AGENT WILLIAM H. BOWIE
ADDRESS 132 WALNUT STREET CLARKSBURG, WV
SURFACE OWNER POCAHONTAS LAND CORPORATION
ADDRESS
MINERAL RIGHTS OWNER POCAHONTAS LAND CORPORATION
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK ARTHUR
ST. CLAIR ADDRESS BRENTON, WV
PERMIT ISSUED NOVEMBER 30, 1987
DRILLING COMMENCED DECEMBER 17, 1987
DRILLING COMPLETED DECEMBER 23, 1987
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.	34	34	
13-10"	135	135	CTS
9 5/8			
8 5/8	422	422	CTS
7			
5 1/2			
4 1/2	1308	1308	1705cs
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION RAVENCLIFF Depth 1200' feet
Depth of completed well 1401 feet Rotary X / Cable Tools
Water strata depth: Fresh 35, 40, 80 feet; Salt NONE feet
Coal seam depths: 165-170 Is coal being mined in the area? NO

OPEN FLOW DATA
Producing formation RAVENCLIFF Pay zone depth 1168-1260 feet
Gas: Initial open flow SHOW Mcf/d Oil: Initial open flow Bbl/d
Final open flow 250 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure 200 psig (surface measurement) after 48 hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: Final open flow Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after hours shut in

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DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

STAGE I RAVENCLIFF PERFORATE WITH 20 (21) HOLES, FRAC WITH 140 BBL 750 FARM,
1234-1254 40000# 23% SAND, 50% GAL 15% HCL, ATP-2400#, AIR-2537M, ISEP-1600#

STAGE II RAVENCLIFF PERFORATE WITH 20 (21) HOLES, FRAC WITH 140 BBL 750 FARM,
1195-1220 40,000# 23% SAND, 50% GAL 15% HCL, ATP-2500#, AIR-3287M, ISEP-1650#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and gas
SAND & FILL			0	16	
SAND & SHALE			16	50	4" STREAM @ 35-40'
SAND			50	147	10" STREAM @ 80'
SHALE			147	165	
COAL (Solid)			165	170	
SHALE			170	282	2" STREAM @ 190'
SAND			282	395	
SAND & SHALE			395	450	
SAND			450	475	
SAND & SHALE			475	760	2" STREAM @ 490'
SAND & SHALE			760	1167	
SAND			1167	1265	GAS SHOW
LIME			1265	1300	
Red Rock (SHALE)			1300	1315	
SAND & SHALE			1315	4401	
DTD - 1401 LTD - 1401					
<u>GAMMARAY LOG</u>					
RAVENCLIFF SAND			1168	1260	
AVIS LIME			1260	1302	



(Attach separate sheets as necessary)

Bowie, Inc.
Well Operator

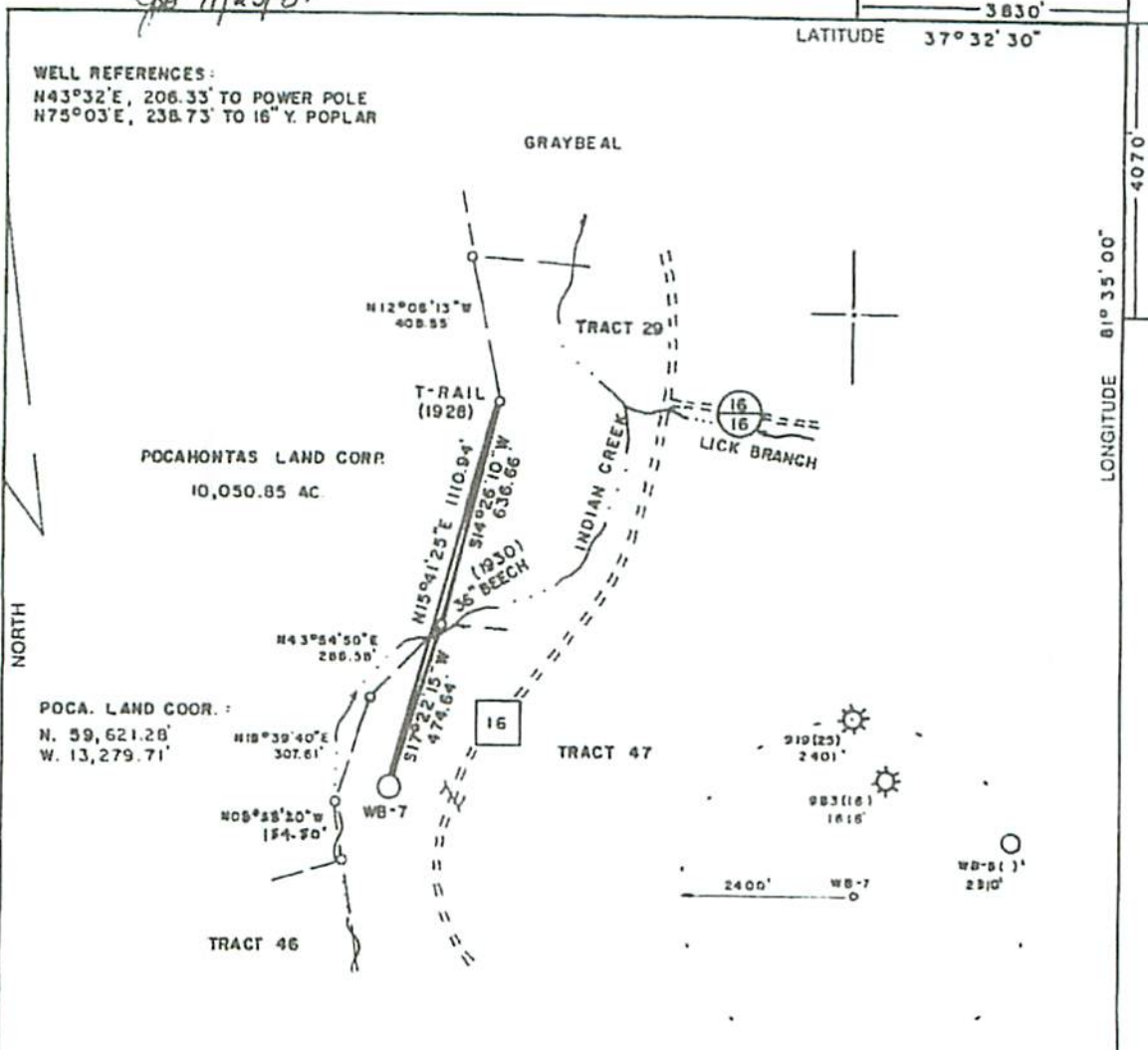
By: Bullayw. Thomas, Geologist RECEIVED
Date: 1-6-87 Office of Oil and Gas

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

AUG 20 2015
WV Department of Environmental 10/09/2015

10901037P

Oct 11/23/87



LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE: 304-842-2018

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION BM 1300' N.E. OF LOCATION ELEV. - 1281'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 (SIGNED) *Stephen D. Losh*
 R.P.E. _____ L.L.S. 674
 STEPHEN D. LOSH

PLATE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE OCTOBER 29, 1987
 OPERATOR'S WELL NO. WB-7
 API WELL NO. 47-109-1037

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1281.49' WATERSHED INDIAN CREEK
 DISTRICT CENTER COUNTY WYOMING
 QUADRANGLE PINEVILLE 7.5 min.

SURFACE OWNER POCAHONTAS LAND CORP ACREAGE 24,980.40
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP LEASE ACREAGE 10,050.85
 LEASE NO. 56244

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION BIG LIME ESTIMATED DEPTH 2900'
 WELL OPERATOR BOWIE, INC. DESIGNATED AGENT WILLIAM BOWIE
 ADDRESS 132 WALDECK ST. ADDRESS 132 WALDECK ST.
 CLARKSBURG, WV 26301 CLARKSBURG, WV 26301

COUNTY NAME
 RECEIVED
 1987

Office of Oil and Gas

AUG 20

WV Department of Environmental Protection
 10/09/2015

FORM WW-6

WW-4A
Revised 6-07

1) Date: JULY 7TH, 2015
2) Operator's Well Number
WB 07
3) API Well No.: 47 - 109 - 01037

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>PINNACLE LAND COMPANY</u>	Name <u>PINNACLE LAND COMPANY</u>
Address <u>PO BOX 446</u>	Address <u>PO BOX 446</u>
<u>MAN, WV 25635</u>	<u>MAN, WV 25635</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NRP, WPP, LLC</u>
	Address <u>5260 IRWIN RD</u>
	<u>HUNTINGTON, WV 25705</u>
(c) Name <u>220 Jack Acres Rd</u>	Name _____
Address <u>Buckhannon WV 26201</u>	Address _____
6) Inspector <u>Dan Mullins</u>	(c) Coal Lessee with Declaration
Address <u>124 Big Trace Fork Rd</u>	Name <u>PINNACLE LAND COMPANY</u> <u>MICHEL BLUESTONE</u>
<u>Beckley, WV 25824</u>	Address <u>PO BOX 446</u> <u>PO BOX 1085</u>
Telephone <u>304-932-6844</u>	<u>MAN, WV 25635</u> <u>BECKLEY, WV 25802</u>

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator K. PETROLEUM INC.
 By: _____
 Its: DESIGNATED AGENT Michael E. G... [Signature]
 Address 4299 NEWARD RD.
ELIZABETH, WV 26143
 Telephone 304-275-0921

Subscribed and sworn before me this 5 day of August, 2015
J. M. Lott Notary Public
 My Commission Expires Aug. 7, 2019

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 Office of Oil and Gas
 AUG 20 2015

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

10/09/2015

WW-9
(2/15)

API Number 47 - 109 - 01037
Operator's Well No. WB 07

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name K. PETROLEUM, INC. OP Code 306574

Watershed (HUC 10) INDIAN CREEK Quadrangle PINEVILLE 7.5

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain PORTABLE PIT)

ANY WELL EFFLUENT MUST BE CONTAINED & DISPOSED OF PROPERLY.

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature _____

Company Official (Typed Name) MICHAEL E. COLLINS *Michael E. Collins*

Company Official Title DESIGNATED AGENT

Subscribed and sworn before me this 5 day of August, 20 15

[Signature]

Notary Public

My commission expires Aug 7, 2019

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Office of Oil and Gas



10/09/2015
Environmental Protection

K. PETROLEUM, INC.

Proposed Revegetation Treatment: Acres Disturbed 3.2 Prevegetation pH 6.67

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 500 Straw

Fertilizer amount STRAW 500 lbs/acre

Mulch _____ Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
TALL FESCUE	40	TALL FESCUE	40
LADINO CLOVER	5	LADINO CLOVER	5

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____

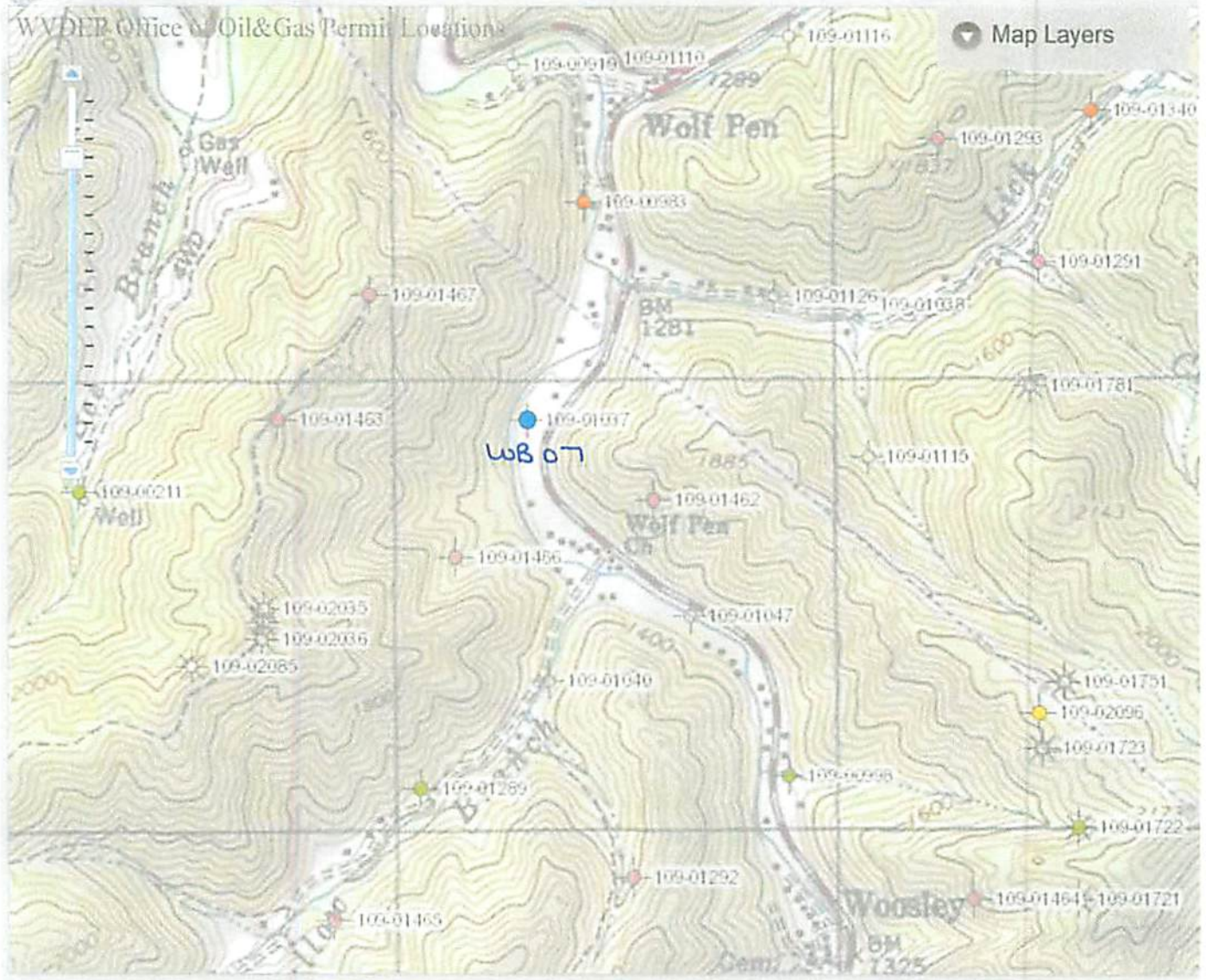
Date: _____

Field Reviewed? () Yes () No

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10/09/2015



WB 07 47-109-01037

[Handwritten signature]

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WV Department of
Environmental Protection

10/09/2015

8/22/2014

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-109-01037 WELL NO.: WB 07

FARM NAME: POCAHONTAS LAND CORP.

RESPONSIBLE PARTY NAME: K. PETROLEUM, INC.

COUNTY: WYOMING DISTRICT: CENTER

QUADRANGLE: PINEVILLE

SURFACE OWNER: PINNACLE LAND COMPANY

ROYALTY OWNER: PINNACLE LAND COMPANY

UTM GPS NORTHING: 4153903.7

UTM GPS EASTING: 447299.7 GPS ELEVATION: 1281'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Jmlett
Signature

OFFICE MANAGER
Title

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Office of Oil and Gas
JULY 2ND, 2015
AUG 20 2015
Date

WV Department of Environmental Protection
10/09/2015